

## Evaluation of a medication use review service in Swiss community pharmacies: “Médicaments à Jour?”

Mathilde Escaith<sup>1,\*</sup>, Sarah Rondeaux<sup>2</sup>, Noelia Amador-Fernández<sup>3</sup>, Jérôme Berger<sup>1</sup>

<sup>1</sup> Center for Primary Care and Public Health (Unisanté), University of Lausanne, Switzerland Centre for Research and Innovation in Clinical Pharmaceutical Sciences, Lausanne University Hospital and University of Lausanne, Switzerland Institute of Pharmaceutical Sciences of Western Switzerland, University of Geneva, University of Lausanne, Switzerland School of Pharmaceutical Sciences, University of Geneva, Switzerland; <sup>2</sup> Center for Primary Care and Public Health (Unisanté), University of Lausanne, Switzerland Centre for Research and Innovation in Clinical Pharmaceutical Sciences, Lausanne University Hospital and University of Lausanne, Switzerland; <sup>3</sup> University of Technology Sydney, Graduate School of Health, 100 Broadway, Sydney, New South Wales, 2007, Australia

\* Corresponding author:

E-mail address: [mathilde.escaith@unisanté.ch](mailto:mathilde.escaith@unisanté.ch) (M. Escaith).

**Background:** In Switzerland, no medication review is currently recognized or remunerated in community pharmacies (CP). In March 2023, a new (type 2A intermediate) medication review, including a review of brought medication boxes, called Médicaments à jour? (MàJ?), was locally introduced to identify drug-related problems (DRPs) associated with patients' home medication management, including self-medication.

**Objective:** To describe the efficiency of MàJ? in detecting and managing DRPs and unused medication, as well as barriers and facilitators perceived by the CP.

**Methods:** A pre-post intervention study is being undertaken in CPs. Pharmacists are recruiting randomly selected patients (adults on at least four prescription drugs taken over three months). Patients receive three structured consultations at 6-months intervals. Pharmacists are contacted after one, three and six months to evaluate the barriers and facilitators they experienced. The primary outcome is identifying and managing DRPs (documented with PharmDISC tool). Secondary outcomes include patients' medication knowledge (assessed with seven questions on a scale of -7 to 7), the number of expired or ceased prescribed medications, the description of pharmaceutical interventions and the facilitators and barriers to implementation.

**Findings:** Nine pharmacies included 29 patients, of which 13 received the three structured consultations. Forty-one DRPs appeared at T0, eight at T6, and one at T12, affecting respectively 48% (n=14), 19% (n=3), and 8% (n=1) of patients. Overall, pharmaceutical interventions decreased from 88 at T0 to 8 at T6 and 1 at T12. Medication knowledge increased by  $0.4 \pm 1.2$  between T0 and T6, and by  $1.1 \pm 1.3$  between T6 and T12. At T0, patients brought 344 medication boxes, from which 88 were eliminated based on pharmacists' recommendations. At T6 and T12, patients brought 112 and 83 boxes, respectively, with none discarded after pharmacist consultations. Most pharmacists had at least one preoccupation regarding MàJ? (10/20 at 1-month, 9/15 at 3-months and 6/15 at 6-months), mostly with “patients' interest” and “time constraint”. Facilitators mentioned in the 6-month questionnaire were the “therapeutic relationship” with the patient and being “convinced by the added-value of MàJ?”. Pharmacists considered the service to be of medium complexity (13/20 at 1-month, 11/15 at 3-months and 6/15 at 6-months).

**Conclusions:** Most patients encountered DRPs that often required several pharmaceutical interventions. These interventions were efficient to reduce DRPs, to sort out patients' medications and to increase their medication knowledge at T6 and T12. However, CP rarely implemented the service, possibly due to time constraints and patient-related factors.

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## Community pharmacists' readiness to provide counseling on food supplements –a systematic review

Katerina Slavcheva<sup>1,\*</sup>, Radiana Staynova<sup>1</sup>, Nelina Neycheva<sup>1</sup>, Evelina Gavazova<sup>1</sup>, Daniela Kafalova<sup>1</sup>

<sup>1</sup> Department of Organisation and Economics of Pharmacy, Faculty of Pharmacy, Medical University of Plovdiv, Bulgaria

\* Corresponding author:

E-mail address: [katerina.slavcheva@mu-plovdiv.bg](mailto:katerina.slavcheva@mu-plovdiv.bg) (K. Slavcheva).

**Background:** Food supplements are frequently used by the public and are widely sold in pharmacies, making community pharmacists the most accessible healthcare professionals who could provide information to patients about them. Pharmacists are ideally positioned to help patients make informed decisions regarding the use of food supplements by knowing what questions to ask and providing appropriate consultation. Pharmacists' knowledge of food supplements is critical to the implementing pharmaceutical care, including proper intake, awareness of side effects, and possible interactions with other medications.

**Purpose:** This study aimed to evaluate the scientific evidence regarding community pharmacists' level of knowledge regarding food supplements and their attitudes toward dispensing and providing counselling to consumers.

**Method:** A literature review was carried out through the scientific databases PubMed, Scopus, and Web of Science using the following keywords: (“food supplements” OR dietary supplements”) AND (“pharmacists' knowledge”) AND (“pharmacists' attitudes”). The inclusion criteria were full-text peer-reviewed articles written in English that investigated community pharmacists' knowledge and attitudes regarding food supplements were included in the analysis. Only studies published between January 2000 and October 2024 were included.

**Findings:** Using the search strategy a total of 738 articles were identified from the electronic databases, of which 22 met the inclusion criteria. Most studies were conducted in Asia (Saudi Arabia, Palestine, India, Jordan, Iran, Malaysia, Iraq, and the United Arab Emirates) compared to fewer in Europe (Italy, Croatia, and Poland), North America (Canada and USA), Australia and Africa (Nigeria). The analyzed studies showed that the community pharmacists' knowledge regarding food supplements is unsatisfactory, and efforts should be made to improve the counselling process.

**Conclusion:** Community pharmacists could play an essential role in advising patients on the safe and appropriate use of food supplements but their attitudes toward this responsibility remain insufficiently explored in the scientific literature.

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## Point-of-care testing in European community pharmacies: A systematic review

Nelina Neycheva<sup>1,\*</sup>, Radiana Staynova<sup>1</sup>, Katerina Slavcheva<sup>1</sup>, Evelina Gavazova<sup>1</sup>, Daniela Kafalova<sup>1</sup>

<sup>1</sup> Department of Organisation and Economics of Pharmacy, Faculty of Pharmacy, Medical University of Plovdiv, Bulgaria

\* Corresponding author:

E-mail address: [nelina.neycheva@mu-plovdiv.bg](mailto:nelina.neycheva@mu-plovdiv.bg) (N. Neycheva).

**Background:** Increasing access to healthcare has been the main goal in improving public health services for the last few years. One approach is to implement rapid diagnostic testing (RDT) such as point-of-care (POC) tests in community pharmacies. Pharmacists with their knowledge, skills and accessibility can provide timely diagnostic services for several conditions including COVID-19, influenza, and streptococcal infections.

**Purpose:** This study aims to evaluate the impact of pharmacist-led POC testing in European community pharmacies. An additional objective is to compare the regulatory opportunities and limitations for these activities in Bulgaria and to compare them with those in other European countries.

**Method:** A systematic literature review was performed using predefined keywords - “point-of-care testing”, “community pharmacy”, “pharmacist” and “pharmaceutical care”, across the PubMed, Scopus and Web of Science databases. Only original, full-text articles written in English and conducted in Europe that investigated the role of pharmacists in performing POC testing in community pharmacies were included. Published data from January 2004 to October 2024 was considered for inclusion. Furthermore, a content analysis was performed on the FIP global intelligence report regarding the requirements for the implementation of POC testing in community pharmacies and the impact on general practitioners' workloads.

**Findings:** A total of 430 articles were retrieved from electronic databases, of which 25 met the inclusion criteria. Several POC tests were identified as the most

frequently utilized in European community pharmacies, including blood glucose measurements, lipid testing, and SARS-CoV-2 tests, in contrast to tests for strep throat, C-reactive protein, and respiratory syncytial virus. One of the most important roles identified was increased access to healthcare and the convenience that pharmacies provide. However, certain limitations exist regarding the legal and regulatory requirements affecting pharmacists' scope of practice concerning POC testing. For example, in Bulgaria, pharmacists are not permitted by law to provide POC testing services, unlike in other countries such as the UK, France, and Romania.

**Conclusion:** This study demonstrated that it is possible to provide a community pharmacy-based screening service through POC testing and to encourage pharmacists to take an active role in patient care. Consequently, by reducing the number of laboratory visits, other healthcare providers, such as general practitioners, will be able to allocate more time to different aspects of their responsibilities.

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#### Usability and test-retest reliability of the medication discrepancy taxonomy (MedTax)

Enas Almanasreh<sup>1,\*</sup>, Rebekah Moles<sup>2</sup>, Timothy F. Chen<sup>2</sup>

<sup>1</sup> Mutah University, Faculty of Pharmacy, Jordan; <sup>2</sup> The University of Sydney

\* Corresponding author:

E-mail address: [almanasreh.enas@gmail.com](mailto:almanasreh.enas@gmail.com) (E. Almanasreh).

**Background:** The medication reconciliation process is intended to minimize the occurrence of medication discrepancies and mitigate their risk at transitions of care. The medication discrepancy taxonomy (MedTax) was developed to assist healthcare professionals in classifying medication discrepancies identified through medication reconciliation.

**Objective:** to assess the usability and test-retest reliability of the medication discrepancy taxonomy (MedTax).

**Method:** 20 healthcare professionals (10 nurses and 10 pharmacists) participated in this study. The participants were asked to use the new taxonomy for classifying 38 different medication discrepancies derived from fictitious cases. The pharmacists required to apply the taxonomy to cases at two times, 7 to 10 days apart. The Fisher's exact test was used to compare the agreement between the nurse and pharmacist groups, Kappa coefficient was used to determine the inter-rater reliability, and McNemar's test was used to evaluate the test-retest reliability.

**Results:** there was no significant difference between the healthcare professionals and the accuracy of classifying the medication discrepancies using the (MedTax). The percentage of overall agreement among nurses and pharmacists was comparable (0.81 and 0.86 respectively). The test-retest reliability of the taxonomy was high (p values > 0.05, McNemar's test).

**Conclusion:** The medication discrepancy taxonomy (MedTax) provides a content valid and reliable approach for various healthcare professionals to be used in different care settings to classify medication discrepancies at transitions of care. The medication discrepancy taxonomy (MedTax) was designed to improve the medication reconciliation process and to enhance the consistency in measuring the outcomes and improve medication safety at transitions of care.

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#### Pharmaceutical literacy in Spain and association with health-related quality of life: CROSS-SECTIONAL STUDY PROTOCOL

Maria Sureda Rosich<sup>1,\*</sup>, Carlos Figueiredo-Escribá<sup>1</sup>, Silvia López Alaiz<sup>2</sup>, Margarita Aguas Compaired<sup>1</sup>, Cecilia F. Lastra<sup>1</sup>, Eduardo L. Mariño<sup>1</sup>, Pilar Modamio<sup>1</sup>

<sup>1</sup> Clinical Pharmacy and Pharmaceutical Care Unit, Department of Pharmacy and Pharmaceutical Technology, and Physical Chemistry, Faculty of Pharmacy and Food Sciences, University of Barcelona, Spain; <sup>2</sup> Treasury and Communication, Spanish Society of Clinical, Family and Community Pharmacy SEFAC, Spain

\* Corresponding author:

E-mail address: [mariasureda@ub.edu](mailto:mariasureda@ub.edu) (M.S. Rosich).

**Background:** According to the WHO, unsafe medication practices and medication errors are a leading cause of injury and avoidable harm in health care systems across the world. One of the domains that define this risk is the patient and public awareness and medication literacy.

Some population-based studies have been carried out in Spain related to health literacy, however, we have no evidence regarding medication literacy or its relationship with patients' health related quality of life.

**Purpose:** This communication outlines a study protocol, which aims to determine the medication literacy level of the Spanish population and relationship between medication relationship with health-related quality of life.

**Method/study design:** Cross-sectional study conducting interviews between patients and community pharmacists through Spain. The study protocol has been approved by the Bioethical Commission of the University of Barcelona (CBUB) and it follows the SPIRIT 2013 guidelines.

**Findings:** The study population includes adults that take at least one prescription medication. The estimated representative sample size is 1,246 patients. A convenience sampling technique is used with the collaboration of the Spanish Society of Clinical, Family and Community Pharmacy (SEFAC) to achieve the needed sample in every region. During the interviews, patients' sociodemographic and clinical data will be collected. To assess patients' knowledge and abilities regarding their medication, the interview guide "RALPH-castellano" will be used. This guide consists of 10 questions distributed in the literacy domains (functional, communicative and critical). Subsequently, the self-administered survey "EQ-5D-5L" will be made available to determine the patients' health related quality of life. This survey includes the dimensions of mobility, self-care, usual activities, pain/discomfort and anxiety/depression. The statistical analysis of the results will be performed to correlate the medication literacy to the health-related quality of life.

**Conclusion:** The current population-based study protocol aims to bring research closer to patients and community pharmacists in a real-world setting, enhancing the value of medication literacy, as a fundamental element for the patients' empowerment on their own health and autonomy.

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#### Optimizing quality-of-care in older people to prevent iatrogenesis and promote a healthy aging –Portuguese survey results.

Maria Teresa Herdeiro<sup>1,\*</sup>, Veronika Lykholat<sup>1</sup>, Jacinta Oliveira Pinho<sup>1</sup>, Ana Isabel Plácido<sup>2</sup>, Elsa Melo<sup>3</sup>, José Mesquita Bastos<sup>4,5</sup>, Luís Miguel André Monteiro<sup>6,7</sup>, Fátima Roque<sup>2</sup>

<sup>1</sup> iBiMED - Institute of Biomedicine, Department of Medical Sciences, University of Aveiro, Aveiro, Portugal; <sup>2</sup> Biotechnology Research, Innovation and Design for Health Products (BRIDGES), Epidemiology and Population Health Laboratory, Polytechnic of Guarda; <sup>3</sup> School of Health Sciences, Institute of Biomedicine (iBiMED), University of Aveiro, Aveiro, Portugal; <sup>4</sup> Cardiology Department, Unidade Local de Saúde da Região de Aveiro (ULSRA), Aveiro, Portugal; <sup>5</sup> Institute of Biomedicine (iBiMED), Department of Medical Sciences, University of Aveiro, Aveiro, Portugal; <sup>6</sup> Department of Medical Sciences, Institute of Biomedicine (iBiMED), Universidade de Aveiro, Aveiro; Centre for Health Technology and Services Research (CINTESIS), Faculty of Medicine, Universidade do Porto, Porto; <sup>7</sup> Unidade de Saúde Familiar Esgueira Mais, Unidade Local de Saúde da Região de Aveiro (ULSRA), Aveiro, Portugal

\* Corresponding author:

E-mail address: [teresaherdeiro@ua.pt](mailto:teresaherdeiro@ua.pt) (M.T. Herdeiro).

**Background:** In Portugal, the aging population is a dominant demographic trend, owing to declining birth rates and increased life expectancy. In older patients, medical interventions and high medicine usage may be associated with iatrogenesis and/or increased iatrogenic dependence. Therefore, it is important to develop strategies to minimize iatrogenesis associated with healthcare and medication to ensure that seniors retain a healthy life and autonomy.

**Purpose:** This work aimed to evaluate the knowledge of healthcare professionals on iatrogenesis and its prevention. This will allow the development of collective